

CLAIMS

We claim:

- 1 1. An illuminating waveguide comprising:
2 an elongated solid light transmitting body having:
3 a first portion extending lengthwise along said body and having a light-
4 transmissive surface, and
5 a second portion extending lengthwise along said body;
6 wherein said first portion has a first cross-sectional shape and said second
7 portion has a conic cross-sectional shape which directs internally-reflected light
8 towards said first portion for transmission out of said body through said light-
9 transmissive surface, said second cross-sectional shape being different in shape than
10 said first cross-sectional shape.
- 1 2. The illuminating waveguide of claim 1, wherein said first cross-sectional
2 shape is conic, whereby said body has a compound conic cross-sectional shape.
- 1 3. The illuminating waveguide of claim 1, wherein said light transmitting
2 body is made of transparent plastic.
- 1 4. The illuminating waveguide of claim 3, wherein the light transmitting body
2 is made of acrylic.
- 1 5. The illuminating waveguide of claim 1, wherein said second portion
2 comprises a reflector.
- 1 6. The illuminating waveguide of claim 5, further comprising a reflective
2 coating on said second portion.
- 1 7. The illuminating waveguide of claim 1, wherein said second cross-
2 sectional shape has at least one focal point.
- 1 8. The illuminating waveguide of claim 7, wherein said second cross-
2 sectional shape is parabolic.

1 9. The illuminating waveguide of claim 1, wherein said second cross-
2 sectional shape is faceted.

1 10. The illuminating waveguide of claim 1, wherein said first cross-sectional
2 shape is semi-circular.

1 11. The illuminating waveguide of claim 1, wherein said first cross-sectional
2 shape is rectilinear.

1 12. The illuminating waveguide of claim 1, wherein the light-transmissive
2 surface of said first portion extends circumferentially around a first side of said body
3 from a first angular location to a second angular location and wherein said second
4 portion has a surface that extends circumferentially around an opposite side of said
5 body from said first angular location to said second angular location.

1 13. The illuminating waveguide of claim 12, further comprising a plurality of
2 mounting flanges extending laterally away from said body at said first and second
3 angular locations.

1 14. The illuminating waveguide of claim 1, wherein said first and second
2 portions extend from a first end of said elongated body to a second end of said
3 elongated body.

1 15. An illuminating waveguide, comprising:

2 an elongated solid light transmitting body having:

3 a first portion extending lengthwise along said body and having a first
4 surface, and

5 a second portion extending lengthwise along said body and having a
6 second surface;

7 wherein said first surface is transmissive to light and said second portion has a
8 parabolic cross-sectional shape to thereby direct light internally reflecting off said
9 second surface towards said first surface for lateral transmission of the light out of
10 said body through said first surface.

1 16. The illuminating waveguide of claim 15, wherein said first portion has a
2 conic cross-sectional shape.

1 17. The illuminating waveguide of claim 15, wherein said light transmitting
2 body is made of transparent plastic.

1 18. The illuminating waveguide of claim 17, wherein said light transmitting
2 body is made of acrylic.

1 19. The illuminating waveguide of claim 15, wherein said second portion
2 comprises a reflector.

1 20. The illuminating waveguide of claim 19, further comprising a reflective
2 coating on said second portion.

1 21. The illuminating waveguide of claim 15, wherein said parabolic cross-
2 section shape of said second portion has at least one focal point.

1 22. The illuminating waveguide of claim 15, wherein said parabolic cross-
2 sectional shape of said second portion is faceted.

1 23. The illuminating waveguide of claim 15, wherein said first portion has a
2 semi-circular cross-sectional shape.

1 24. The illuminating waveguide of claim 15, wherein said first surface of said
2 first portion is rectilinear.

1 25. The illuminating waveguide of claim 15, wherein said first surface
2 extends circumferentially around a first side of said body from a first angular location
3 to a second angular location and wherein said second surface extends
4 circumferentially around an opposite side of said body from said first angular location
5 to said second angular location.

1 26. The illuminating waveguide of claim 25, further comprising a plurality of
2 mounting flanges extending laterally away from said body at said first and second
3 angular locations.

1 27. The illuminating waveguide of claim 15, wherein said first and second
2 portions extend from a first end of said elongated body to a second end of said
3 elongated body.